

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 040133PCT	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/JP2005/001755	International filing date (day/month/year) 07.02.2005	Priority date (day/month/year) 12.02.2004	
International Patent Classification (IPC) or national classification and IPC G11B20/12, G11B7/004, G11B7/007, G11B20/10, G11B27/00			
Applicant PIONEER CORPORATION			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>4</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																								
<p>4. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2005/001755

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

 - international search (Rule 12.3 and 23.1(b))
 - publication of the international application (Rule 12.4)
 - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:

pages 1-29 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the claims:

nos. 2, 3, 5, 6, 8-10, 12-14, 16, 17 as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1, 4, 7, 11, 15, 18 received by this Authority on 02.12.2005

nos.* _____ received by this Authority on _____

the drawings:

sheets fig. 1-10 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____

the claims, nos. _____

the drawings, sheets/figs _____

the sequence listing (*specify*): _____

any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____

the claims, nos. _____

the drawings, sheets/figs _____

the sequence listing (*specify*): _____

any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2005/001755Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-18	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-18	NO
Industrial applicability (IA)	Claims	1-18	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP 09-167447 A (Sony Corp.), 24 June 1997,
paragraphs [0008], [0040] to [0048], [0103]
and [0104], fig. 2 and 3

Document 2: JP 11-250583 A (Sony Corp.), 17 September
1999, paragraphs [0136] to [0153] and
[0176], fig. 11 to 13

Document 3: JP 2001-184652 A (Ricoh Co., Ltd.), 06 July
2001, paragraph [0065]

Document 4: JP 2001-266547 A (Sanyo Electric Co., Ltd.),
28 September 2001, paragraphs [0017], [0018]
and [0024], fig. 2, 3 and 6

Document 5: JP 10-143406 A (Hitachi, Ltd.), 29 May 1998,
paragraphs [0012] to [0026], fig. 1 to 11

Document 6: JP 2000-123494 A (Kenwood Corp.), 28 April
2000, paragraphs [0022] to [0031], fig. 1
and 2

The inventions set forth in claims 1 to 4, 6, 9, 11
to 13 and 15 to 18 do not involve an inventive step in
the light of document 1 and document 2. Document 1
discloses a technique for recording a volume space bitmap
and a fault detection byte that expresses whether said
volume space bitmap is normal or abnormal; discloses a

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technique whereby more of the bits in the aforementioned fault detection byte are allocated in cases when a variety of consistency verification processes are carried out in addition to the process for determining whether or not there is an abnormality; discloses a technique whereby a recovery program is executed in cases when the aforementioned fault detection byte indicates that there is an abnormality; and also discloses a technique whereby the aforementioned fault detection byte is set so as to indicate that there is an abnormality prior to the data writing process, and is set so as to indicate that all is normal after the completion of the data writing process. Furthermore, document 1 also indicates that a "variety of consistency verification processes, [including]...a process for verifying the consistency of the file management information...are carried out in addition to the process for determining whether or not there is an abnormality" (paragraph [0103]), and thus document 1 can be said to suggest increasing the range of items that are subjected to a consistency verification process. Meanwhile, document 1 and document 2 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, in the light of the abovementioned disclosures in document 1 it would have been easy for a person skilled in the art to conceive of configuring so that the invention disclosed in document 1 subjects each set of management information from among a plurality of types of management

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information, including defect management information, to consistency verification processes, like in the invention disclosed in document 2. When combining the inventions disclosed in documents 1 and 2, a person skilled in the art could select the well-known PCA counters that are disclosed in document 3 as the plurality of types of management information, as appropriate. In addition, the selection of a well-known write once/read many type disk as the disk in the invention disclosed in document 1 is merely a simple design matter that could have been configured by a person skilled in the art, as appropriate.

The inventions set forth in claims 5, 10 and 14 do not involve an inventive step in the light of documents 1, 2 and 4. Document 1 and document 4 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, it would have been easy for a person skilled in the art to conceive of configuring so that the fault detection byte and the volume space bitmap in the invention disclosed in document 1 have a single-table data structure, like in the invention disclosed in document 4, or of configuring so that the recovery program in the invention disclosed in document 1 searches the user data area in order to recover a file information table, like in the invention disclosed in document 4.

The inventions set forth in claims 7 and 8 do not involve an inventive step in the light of documents 1, 2

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and 5. Document 1 and document 5 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, in the light of the abovementioned disclosures in document 1 it would have been easy for a person skilled in the art to conceive of configuring so that the prescribed sets of data that are manipulated in order to indicate whether a set of data must be subjected to a recovery process (i.e., in order to indicate whether the set of data was updated correctly) in the invention disclosed in document 5 are subjected to consistency verification processes in the invention disclosed in document 1. Furthermore, the inventions set forth in claims 7 and 8 cannot be considered to exhibit a significant effect in comparison to the inventions disclosed in documents 1, 2 and 5 as a result of configuring so that the prescribed data is data that is stored on each layer of the well-known multilayer optical disk disclosed in document 6 when combining the inventions disclosed in documents 1 and 5; therefore, the configuration in question is merely a simple design matter that could have been configured by a person skilled in the art, as appropriate.